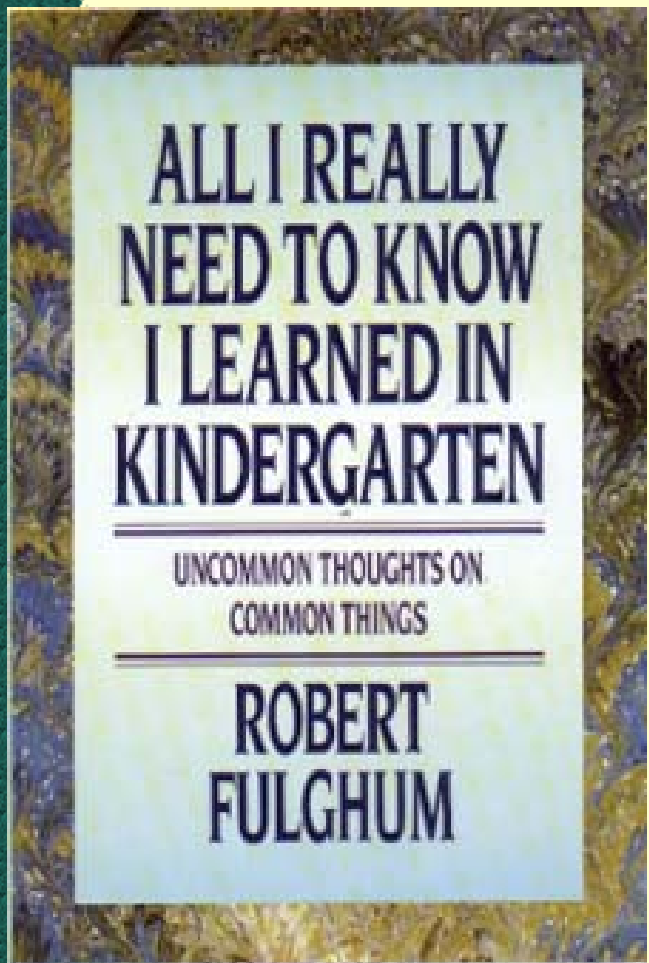


Integrating Response with Restoration



John Meyer and Jon Rauscher, USEPA Region 6

OR



ABOUT INTEGRATING RESPONSE WITH
RESTORATION

The Rules

- **Put things back where you found them**
- **Play Fair**
- **Share Everything**
- **Take an afternoon nap**
- **Live a balanced life – play and work everyday**
- **Say you're sorry when you hurt someone**

The Rules cont.

- **When you go out into the world, hold hands and stick together**
- **Clean up your own mess or Don't take things that aren't yours**
- **Warm cookies and cold milk are good for you**
- **Don't hit people**

Rule 1: Put things back where you found them

Restoration – Restore or replace impacted natural resources

Basis: Return to “pre-impacted” state

versus

Response – Actions taken to protect human health and the environment

Basis: Human health risk 10^{-4} to 10^{-6} , HI > 1

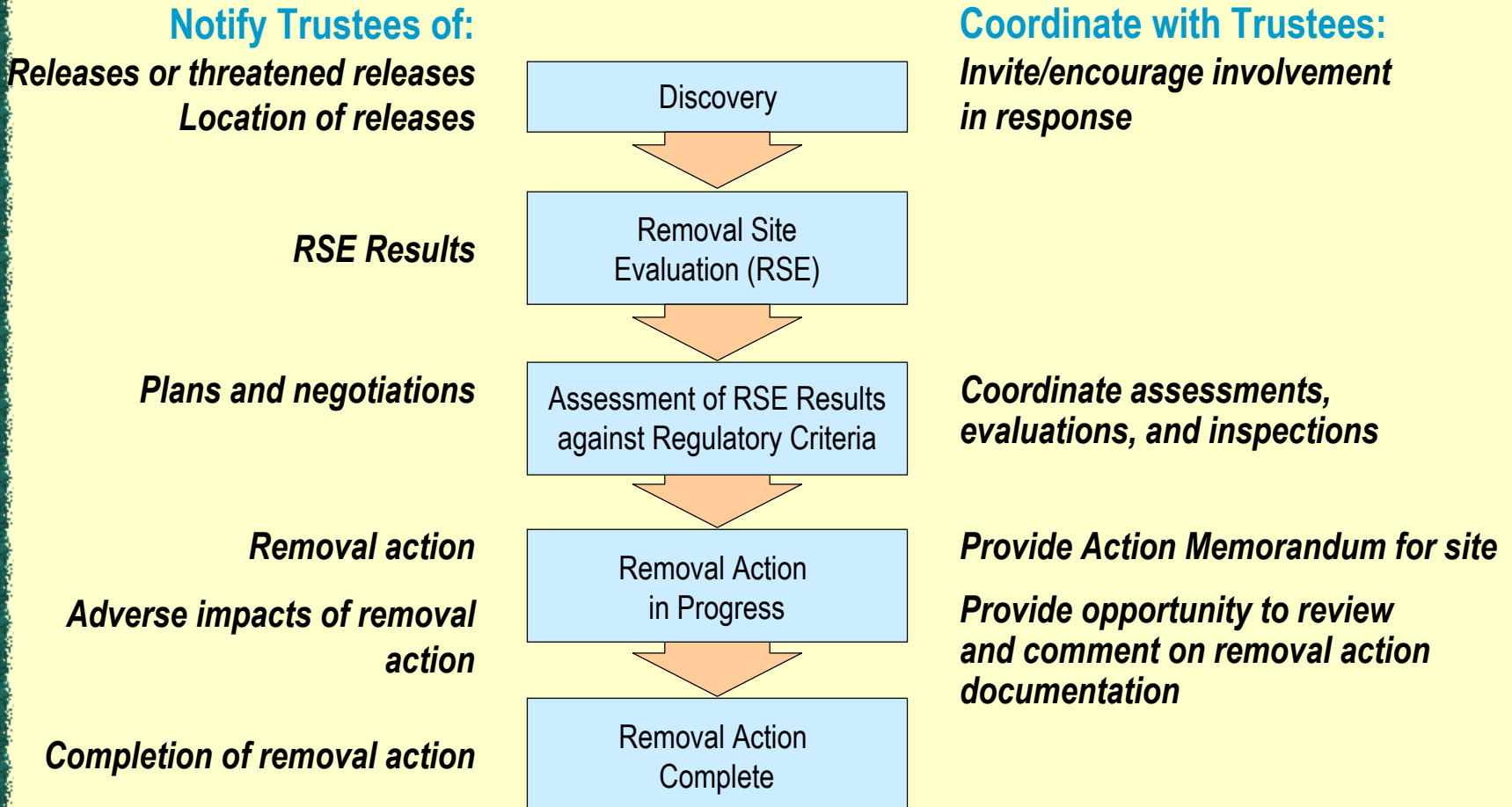
Ecological – Reduce risk to allow healthy local populations

Rule 2: Play Fair

- CERCLA Section 104(b)(2) requires EPA to notify Federal and State Trustees of potential natural resource injuries
- CERCLA Coordination with Natural Resource Trustee, OSWER Directive 9200.4-22A, July 31, 1997
 - www.epa.gov/superfund/programs/nrd/fields.pdf
- Where there are multiple trustees...they should coordinate and cooperate in carrying out these responsibilities.
NCP Section 300.615

Superfund Removals:

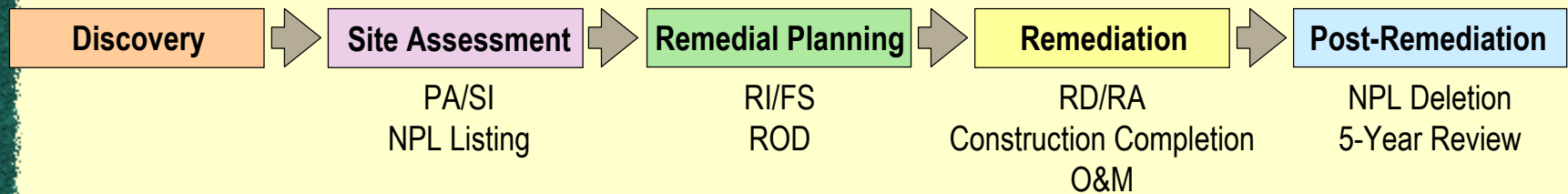
NRD Notification and Coordination



Superfund Remedial Actions:

NRD Notification and Coordination

Superfund Remedial Actions:



Notification and Coordination
with Trustees throughout Pipeline

Superfund Remedial Actions:

NRD Notification and Coordination

Notify Trustees of:

Releases or threatened releases

Location of releases

Initiation/termination of discovery

Discovery

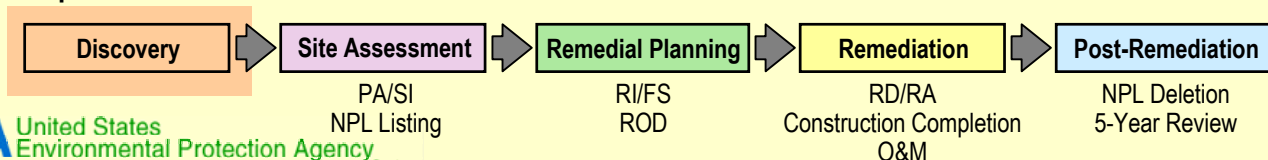
Coordinate with Trustees:

Invite/encourage involvement in response

Respond to requests for enforcement

Exchange PRP information and coordinate CERCLA §104 requests

Superfund Remedial Actions:



Superfund Remedial Actions:

NRD Notification and Coordination

Notify Trustees of:

—— Site Assessment ——

Coordinate with Trustees:

Request for PA/SI

Initiation/termination of PA/SI

Completion of draft and final documents

Preliminary Assessment/
Site Investigation (PA/SI)

Provide PA checklist

Coordinate assessments, evaluations, investigations, and planning

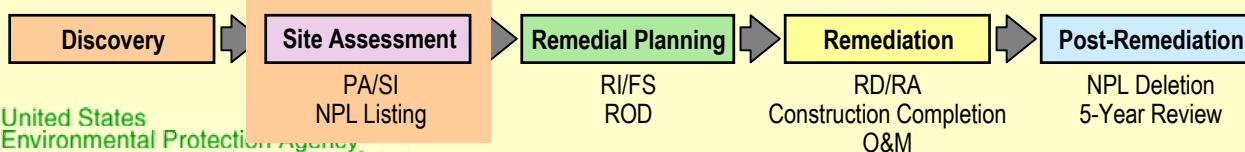
Provide opportunity to participate in human health and ecological risk screening

Proposal for inclusion on NPL

NPL Listing

Provide national lists and site-specific information supporting NPL listing

Superfund Remedial Actions:



Superfund Remedial Actions:

NRD Notification and Coordination

Notify Trustees of:

Initiation/Termination of RI/FS activities

Receipt of draft and final work plans

Completion of draft and final RI/FS reports

Development of human health and ecological risk assessment

Initiation/Termination of ROD

— Remedial Planning —

Remedial Investigation/
Feasibility Study (RI/FS)

Record of Decision
(ROD)

Coordinate with Trustees:

Provide opportunity for Trustees to comment on work plans, RI/FS reports, remedial alternatives, ARARs, and the proposed plan

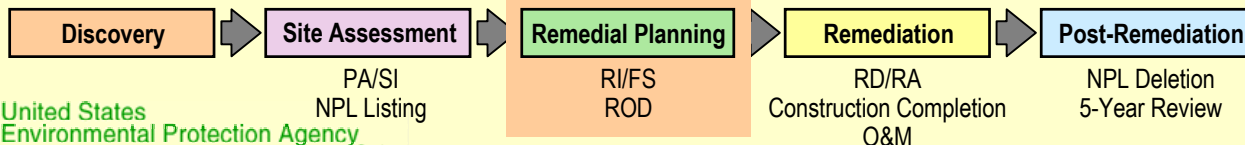
Coordinate necessary assessments with Trustees

Provide opportunity for Trustees to comment on ROD

Provide opportunity to review and comment on negotiated draft agreements

Provide copy of final ROD

Superfund Remedial Actions:



Superfund Remedial Actions:

NRD Notification and Coordination

Notify Trustees of:

———— Remediation ————

Coordinate with Trustees:

Initiation/Termination of RD/RA negotiations

Completion of draft and final work plans/documents

Remedial Design/
Remedial Action (RD/RA)

Provide opportunity to review draft work plan and RD/RA documents

Invite/encourage Trustee involvement in planning response actions

Provide opportunity for Trustee to negotiate with PRPs

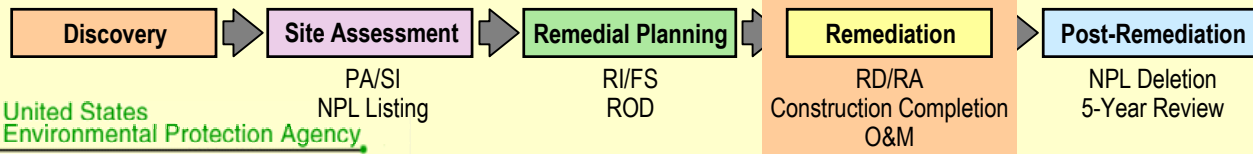
Construction Completion determination

Construction Completion

Operation & Maintenance
(O&M)

Provide opportunity for commitment on O&M plans

Superfund Remedial Actions:



Superfund Remedial Actions:

NRD Notification and Coordination

Notify Trustees of:

—— Post-Remediation ——

Coordinate with Trustees:

*Notice of Intent to Delete,
Final Notice of Deletion, or
Notice of Intent of Partial Deletion*

NPL Deletion

*Provide opportunity to participate
in close-out activities*

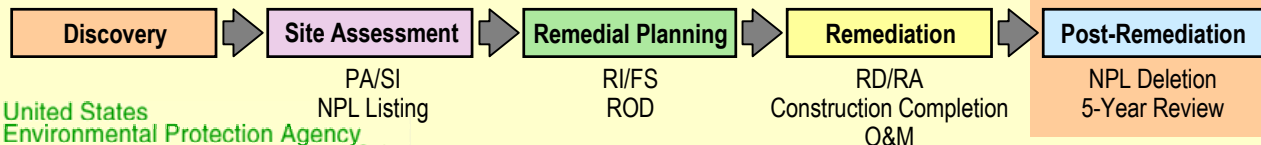
*Provide opportunity to comment
on draft close-out report*

*Provide copy of
Five-Year Review report*

Five-Year Review

*Provide copy of Five-Year Review
report*

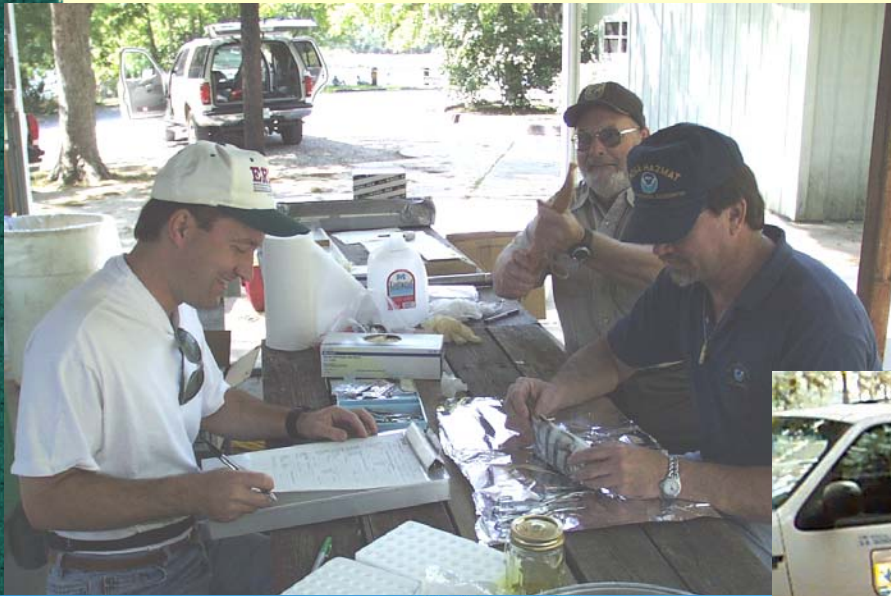
Superfund Remedial Actions:



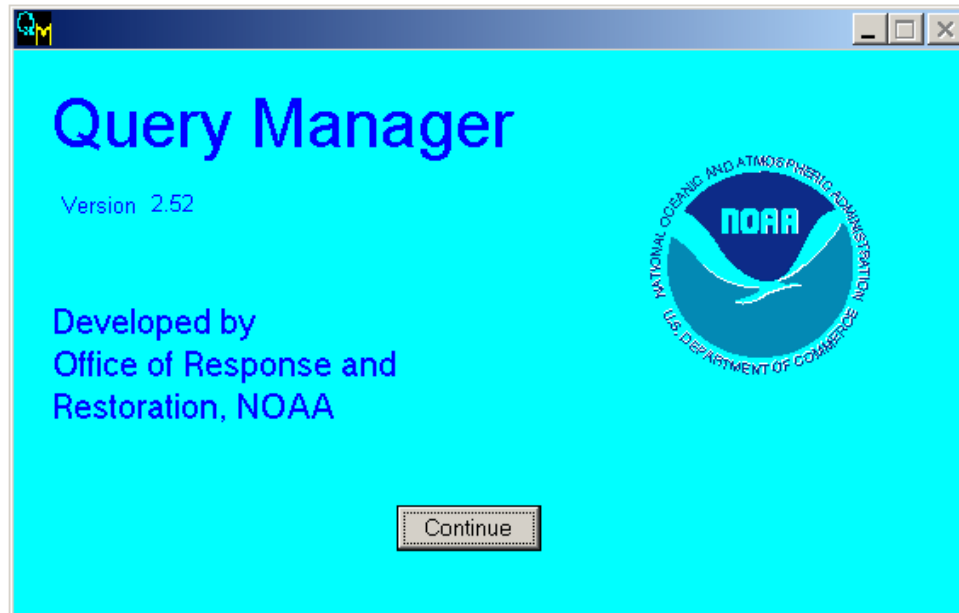
Rule 3: Share Everything

- Share your knowledge and expertise
- Share your toys (boats, sampling equipment, labs)

Share your Toys



Share your Tools



Share local knowledge of sites



Share testing capabilities



Rule 4: Take an afternoon nap



Rule 5: Live a balanced life – play and work everyday



But don't catch a bigger fish
than the EPA guy!

Rule 6: Say you're sorry when you hurt someone

- PRP's should be the driving force to integrate restoration into response.
- Collect damage assessment data during RI.
- Efficient use of resources: legal, engineering, construction.
- Maximize chance of settling all obligations in one settlement

Site Example- Brio Refining, Houston, TX

- Large containment remedy prohibited on-site restoration.
- Remedy required large amount of backfill.
- Adjacent property used as a borrow pit.



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Site Example – Bayou Verdine

- PRP lead time critical removal action
- Free phase EDC in bayou sediments
- Located on active refinery property



Rule 7: When you go out into the world, hold hands and stick together

- **Early public involvement**
- **Attend open houses, interact with the community**
- **Educate the community early on about the process**
- **Regional reps (NOAA and USFWS R6, 8, 9)**

Trustee presence at public meetings



Rule 8: Clean up your own mess or Don't take things that aren't yours.

Recognize what can/can't be done in Response

CERCLA 111(c) authorizes Fund to pay for assessing NRD and restoring NRD, BUT, SARA 517 (c) (1)(A)(ii) says “NO”.

BUT, can use Fund to pay trustee costs for investigation activities supporting EPA efforts.

SO find ways to leverage field efforts.

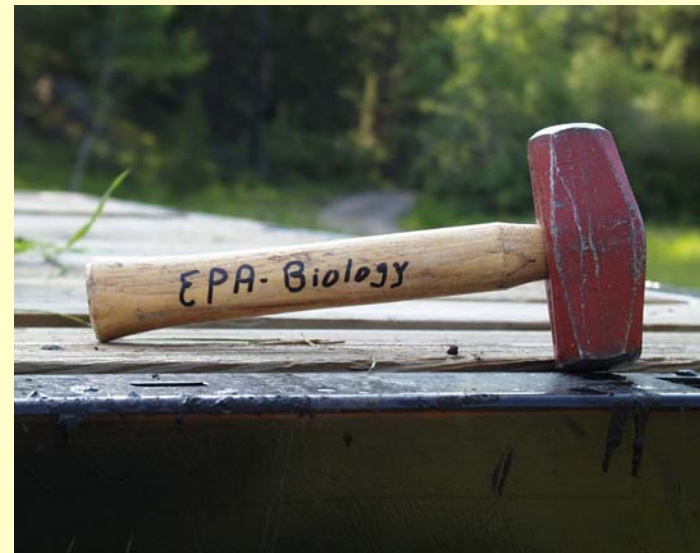
Example: Use biota sample for multiple uses. BEST evaluation/EPA edible tissue.

Rule 9: Warm cookies and cold milk (and cold beer) are good for you



Rule 10: Don't Hit People

Stay involved in the response process so you don't show up at the last second and realize that your concerns haven't been addressed.



Summary

- Build a team dynamic to solving the environmental issues at the site.
- Start communicating early in the site process.
- Talk often as the site progresses and exchange information.
- Utilize each others process effectively (as allowed).
- Play nice 😊



The End